

Manufacturing Barometer

**Business outlook report
October 2013**

*Special topic:
Human capital*

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Quarterly highlights

Key findings:

In the third quarter of 2013, PwC interviewed 60 US-based industrial manufacturing executives about their current business performance, their views on the state of the economy, and their expectations for business growth over the next 12 months. We then compared their responses with results from prior quarters to see how the panel's 12-month outlook has changed. Overall, optimism among US industrial products manufacturers surveyed remained at a high 60 percent level, and optimism about the world economy's prospects over the next 12 months rose from 31 percent to 40 percent among those selling abroad – its first positive upward swing since 1Q 2012 when optimism was at 44 percent.

Moderate own company revenue forecasts were predicted for the next 12 months at a 4.2 percent pace, off slightly from the prior quarter and a year ago (4.6 percent). Looking ahead, 82 percent expect positive results for their companies, and only 9 percent forecast negative growth or zero growth.

International sales were off slightly to 30 percent as a contribution to total revenues among those selling abroad.

Hiring plans remained moderate, although the majority (58 percent) now report net new hiring over the next 12 months. In sharp contrast, spending plans were notably higher: both for major new investments of capital and for increased operational budgets. Increased investment on new product or service introductions was cited by 55 percent.

Finally, gross margins improved in 3Q 2013, and relatively few cite decreasing profitability as a potential headwind to growth (only 15 percent, off 9 points).

- **Optimism high in the US and rises worldwide.**

Optimism among industrial manufacturers about the US economy's prospects over the next 12 months remained high among industrial manufacturers, at 60 percent, similar to last quarter's 63 percent, and notably higher than a year ago (37 percent, 23 points lower). Only 5 percent are pessimistic and 35 percent uncertain. Nearly 4 in 5 (78 percent) of panelists believed the US economy was growing in 3Q 2013.

A rise in optimism about the world economy's prospects over the next 12 months among those selling abroad was found – rising 9 points quarter-to-quarter to 40 percent – its highest level since 1Q 2012. A year ago, 29 percent were optimistic (11 points lower). Only 12 percent are now pessimistic, but 48 percent remained uncertain.

- **Moderate own-company revenue forecasts.** The projected average growth rate for own-company revenue over the next 12 months remained a moderate 4.2 percent, off slightly from the prior quarter and a year ago (4.6 percent level). Looking ahead, 82 percent expect positive revenue growth, with 7 percent expecting double-digit growth and 75 percent single-digit growth. Only 2 percent forecast negative growth for their own companies, and 7 percent expect zero growth. The remaining 9 percent were not reported.

- **International sales a mixed picture.** While optimism about the world economy rose to the 40 percent level among those selling abroad, the expected contribution to total revenue from international sales over the next 12 months was off slightly from 32 percent to 30 percent (an actual drop of 1½ points). A year ago, the contribution was a notably higher 38 percent. The implication here is that the US revenues have gone up, but that rise has not as yet been matched by increased international revenue growth. In fact, quarterly sales for international were mixed, only 18 percent higher but 18 percent lower, and 64 percent about the same – reflecting a static condition at present.

- **Headwinds to business growth.** Concern about legislative/regulatory pressures is the most cited barrier to growth over the next 12 months, up 5 points to 58 percent – and is notably higher than a year ago (44 percent, 14 points lower). Lack of demand is next at 45 percent, but down from 67 percent a year ago when it was the chief barrier to growth and legislative/regulatory pressure was in second place. Potential barriers on the rise this quarter are lack of qualified workers (22 percent, up 9 points), capital constraints (20 percent, up 7 points) and oil/energy prices (28 percent, up 6 points from its recent low). In contrast, concern about taxation policies (22 percent) and decreasing profitability (15 percent) were off ten and nine points, respectively. Competition from foreign markets remained moderately high at 32 percent (in third place).

- **More hiring but at moderate rates.** The majority, 58 percent, of US industrial product manufacturers surveyed are planning net new hiring over the next 12 months, a notable increase of 16 points over the prior quarter's 42 percent, and 11 points higher than a year ago. While more firms plan to be hiring, the net workforce additions over the next 12 months was off slightly from 0.9 percent to 0.7 percent – indicating moderate hiring continuity but among more firms. Only 3 percent plan to reduce the number of full-time equivalent employees, and 39 percent will stay about the same. Most sought are professionals/technicians, skilled labor and production workers. Sales/marketing remained quite low.

- **A boost in spending plans.** It is noteworthy that 48 percent of US industrial product manufacturers are planning major new investments of capital over the next 12 months, up 8 points from the prior quarter. Also, the mean investment as a percentage of total sales was sharply higher at 6.5 percent versus 4.0 percent last quarter and 5.8 percent a year ago.

Operational spending increases over the next 12 months are planned by 78 percent (up 5 points). Leading this increase is new product or service introductions, up 10 points to 55 percent. R&D maintained second position,

at 38 percent (same), followed by IT at 35 percent (up 7 points) and facilities expansion, 30 percent (up 10 points). Also on the increase are plans to increase geographic expansion, up 8 points to 23 percent. Still on the low side were marketing and sales promotion and advertising – 15 percent and 8 percent, respectively.

More are planning new joint ventures (33 percent) and new strategic alliances (27 percent) over the next 12 months. But plans for M&A activity remained at a similar 22 percent, with purchase of another business at a moderate 17 percent. Expansion to new markets abroad continued at 18 percent (same), while new facilities abroad dropped to 8 percent. On the debit side, a net 10 percent were reducing their footprints abroad, with closing/reducing facilities cited by 8 percent.

- **Margins improve in 3Q 2013.** Gross margins were higher for 33 percent and lower for 15 percent– a net plus 18 percent higher (11 points above the prior quarter). In 3Q 2013, both costs and prices were notably higher: net 20 percent with increased costs and net 27 percent with raised prices. Importantly, only 15 percent cite decreasing profitability as a headwind to growth over the next 12 months, off 9 points from last quarter's 24 percent.

A quarter-over-quarter comparison of key indicators shows the business outlook for the next 12 months and how the views of the panel have changed each quarter (see chart 1.1). The pages that follow provide a detailed look at each question for the past five quarterly surveys.

Special topic: Human capital

- **Need to fill skill gaps.** Significantly, more than three-fourths (77 percent) of US industrial products manufacturers surveyed cite a need to fill certain skill gaps in their businesses over the next 12-24 months. Only 23 percent claim to have all the right skills needed at present.
- **Where are biggest skill gaps?** The biggest skill gaps identified were in middle management (70 percent) and skilled labor (67 percent). Senior management is cited by 15 percent.
- **Skill functions planning to hire.** Virtually all US industrial products manufacturers (87 percent) will be hiring new skill function employees over the next 12-24 months. The broadest needs are in engineering and design (48 percent) and in manufacturing (45 percent). Next are research and development (33 percent), financial and bookkeeping (32 percent), marketing and sales (27 percent), and IT (18 percent).
- **Plans on how to fill skill gaps.** To fill the company's skill gaps over the next 12-24 months, panel companies cite several plans: Hire new talent, 85 percent (a 55 percent major initiative), and train/develop existing talent, 85 percent (a 37 percent major initiative). Sixty-eight percent will use outside contractors, and 48 percent will redeploy talent from different functions/areas.
- **Investment areas to attract/retain talent.** Three critical investment areas are cited by US industrial product

manufacturer panelists to attract and retain talent. They are in-depth training programs, 47 percent (22 percent a great deal of investment); formal career-path development, 47 percent (12 percent a great deal); and healthcare/benefits programs, 45 percent (3 percent a great deal). Also noted were formal mentoring/coaching (28 percent), special incentive programs (22 percent), and flexible work arrangements (20 percent).

- **Is talent management a company priority?** Significantly, nearly all US industrial product manufacturers (89 percent) currently rank talent management – the development of talented/skilled workers – as a top 10 priority (47 percent as one of their top 5 priorities, and 42 percent as priorities 6 through 10). Another 7 percent believe it important but not a high priority, and only 2 percent rank it as a non-priority.
- **Open positions unable to fill this past year.** Over the past year, half (50 percent) of US industrial product organizations admit to having open positions that they were unable to fill with experienced or skilled employees. Another 12 percent were uncertain, while 37 percent claim to have had no open positions.

In sum, in a limited job market, it is troublesome that three-fourths of panelists report a skill gap, and half those companies report an inability to fill certain skill gaps over the past year.

Key indicators for the business outlook

Chart 1.1 Key indicators for the business outlook

A quarter-over-quarter comparison of the survey's key indicators shows how the 12-month outlook has changed each quarter. The change column indicates the movement of opinion of those surveyed over the past two quarters.

Business outlook, next 12 months among industrial manufacturers	2012		3013			Change	Page
	3Q '12	4Q '12	1Q '13	2Q '13	3Q '13	2Q'13 – 3Q'13	
Optimistic about US economy	37%	48%	55%	63%	60%	=	10
Optimistic about world economy	29%	32%	36%	31%	40%	↑	12
Expect positive revenue growth	82%	83%	78%	82%	82%	=	22
Average growth rate expected	4.6%	5.2%	4.3%	4.6%	4.2%	↓	22
Planning major new investments	49%	47%	43%	40%	48%	↑	26
New investments as a % of sales	5.8%	5.3%	4.8%	4.0%	6.5%	↑	26
Planning to hire	47%	58%	45%	42%	58%	↑	24
New workers as a % of workforce (net)	0.7%	0.5%	1.0%	0.9%	0.7%	=	24
Expected barriers to growth:							
• Legislative/regulatory pressures	44%	47%	55%	53%	58%	↑	28
• Lack of demand	67%	52%	48%	47%	45%	=	28
• Competition from foreign markets	23%	20%	19%	30%	32%	=	28
• Oil/energy prices	33%	42%	35%	22%	28%	↑	28
• Taxation policies	23%	33%	45%	32%	22%	↓	28
• Lack of qualified workers	23%	25%	19%	13%	22%	↑	28
• Capital constraints	18%	12%	17%	13%	20%	↑	28
• Decreasing profitability	21%	30%	26%	24%	15%	↓	28
• Monetary exchange rate	23%	18%	12%	15%	13%	=	28
• Higher interest rates	5%	8%	7%	10%	13%	↑	28
• Pressure for increased wages	7%	18%	10%	10%	8%	=	28

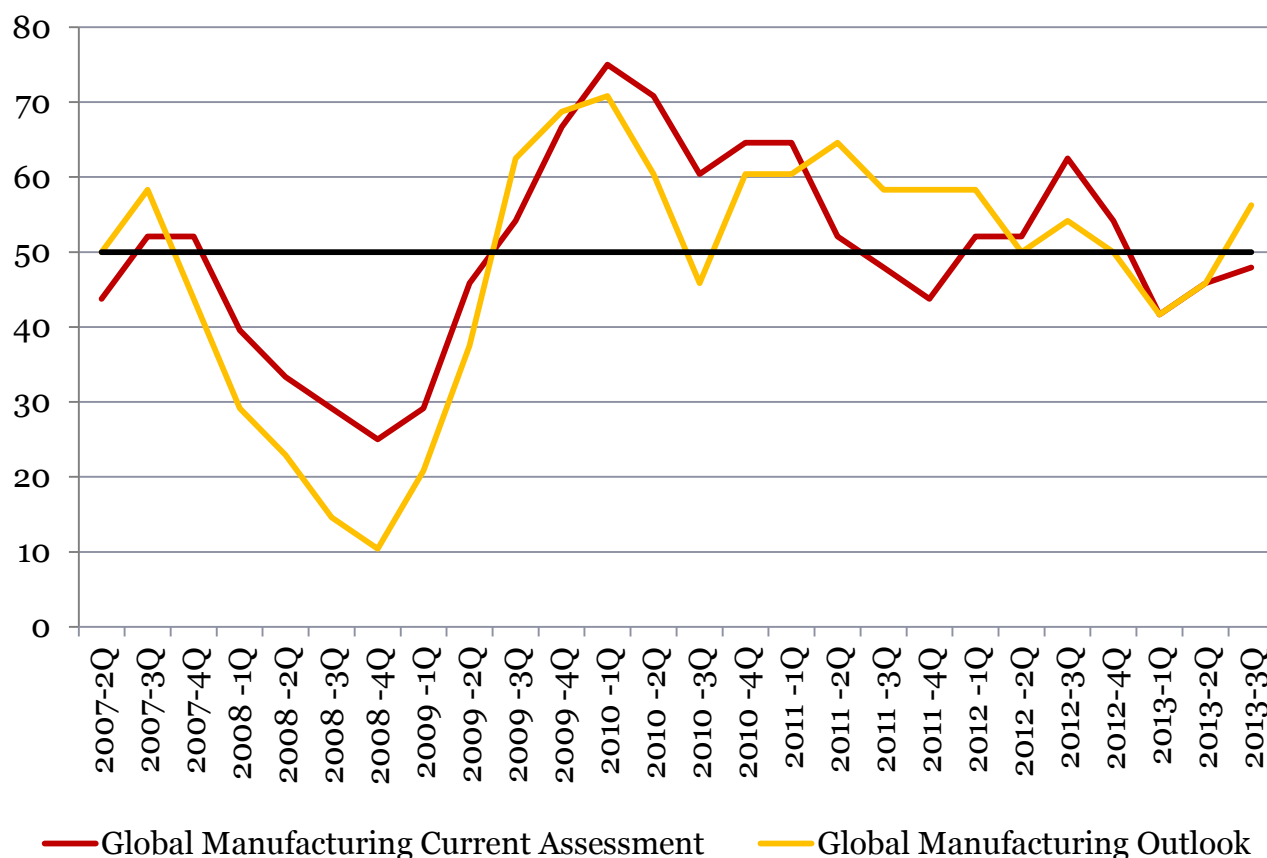
PwC global manufacturing current assessment and outlook indices

The manufacturing outlook index was up sharply in the third quarter, with executives sharing the belief that business conditions over the next twelve months will improve. The current assessment index also moved upward, but does not yet indicate that same level of optimism in regard to recent business conditions. In fact, the outlook index has moved ahead of the current assessment for the first time since early 2012, and the spread between the two is at the highest level since 2011. Respondents seem to be saying that the minor deterioration in the recent environment is starting to reverse and that they are confident of better times ahead.

This confidence is shown in manufacturer plans to increase both their operating and capital expenditures. And perhaps the most encouraging sign from the sector is that hiring expectations have risen significantly. In fact, the percentage of companies that plan to add workers over the next twelve months is at a five-year high, representing the second highest quarterly percentage over the last ten years. Manufacturer hiring plans are diversified among both production and non-production workers.

The trend of manufacturer's relative optimism toward the US economy continues. We noted in the last update that the spread of enthusiasm over the future prospects of US economy relative to the global economy was at a historical high. It remains near this high, but it is interesting that the percentage of executives who believe that the US economy is currently growing is now at the highest level since 2006. In addition, the excess of this number over those that believe that the global economy is growing is at the highest level since we first started asking for perceptions of current global growth in 2006.

Looking forward, this seems to indicate that assessments of manufacturing conditions in upcoming quarters may be driven by performance within the US. If the US economy stumbles, then absent some outperformance in global economic output, we could see a breakout of more negative sentiment. However, should the US perform as manufacturers expect, it is likely that we could see these recent optimistic expectations for spending and employment play out within the sector.



PwC global manufacturing current assessment and outlook indices

Background/methodology

PwC has surveyed global manufacturing executives since 2003 with the results published in our *Manufacturing Barometer* publication. The responses to these survey questions have been used to measure the sentiment of manufacturers by creating current assessment and outlook indices. The Global Manufacturing Current Assessment Index measures current trends in pricing, margins, employment, and capital expenditures; while the Global Manufacturing Outlook Index measures expectations for revenue, employment, operational spending, and capital expenditures. These results are calculated as a four-quarter moving average of diffusion indices which measure the degree to which their equal-weighted components move in the same direction at the same time. The indices are scaled between 1 and 100 with above 50 indicating more positive sentiment and below 50 indicating more negative sentiment.

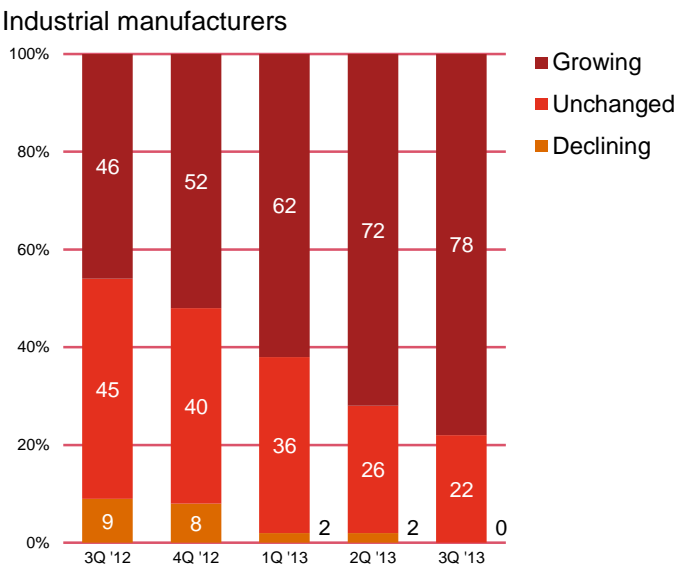
Economic views

View of the US economy, this quarter

Which best describes your view of the US economy this quarter?

In third-quarter 2013, 78 percent of US industrial manufacturers surveyed believed the US economy was growing, up 6 points from the prior quarter’s 72 percent. None believed it was declining, and 22 percent saw no change from second-quarter 2013.

Chart 2.1 View of the US economy, this quarter



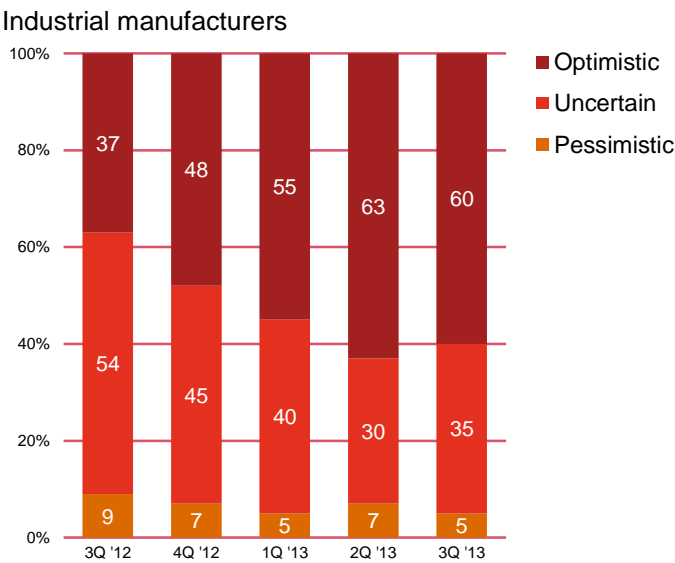
Note: In 3Q 2013 total respondents = 60

View of the US economy, next 12 months

Looking at the next 12 months, how do you feel about the prospects for the US economy?

Looking ahead, 60 percent of respondents expressed optimism about the 12-month outlook for the US economy, off 3 points from the prior quarter's 63 percent. Five percent were pessimistic (off 2 points), while 35 percent were uncertain.

Chart 2.2 View of the US economy, next 12 months



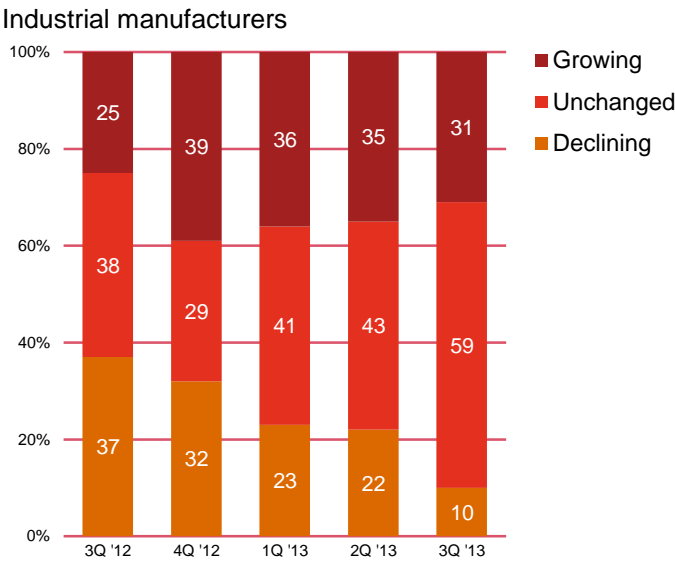
Note: In 3Q 2013 total respondents = 60

View of the world economy, this quarter

Which best describes your view of the world economy this quarter? (international marketers only)

In third-quarter 2013, 31 percent of the panelists marketing abroad viewed the world economy as growing, off 4 points from the prior quarter. Ten percent believed it was declining (12 points less), and 59 percent said they saw no change.

Chart 2.3 View of the world economy, this quarter



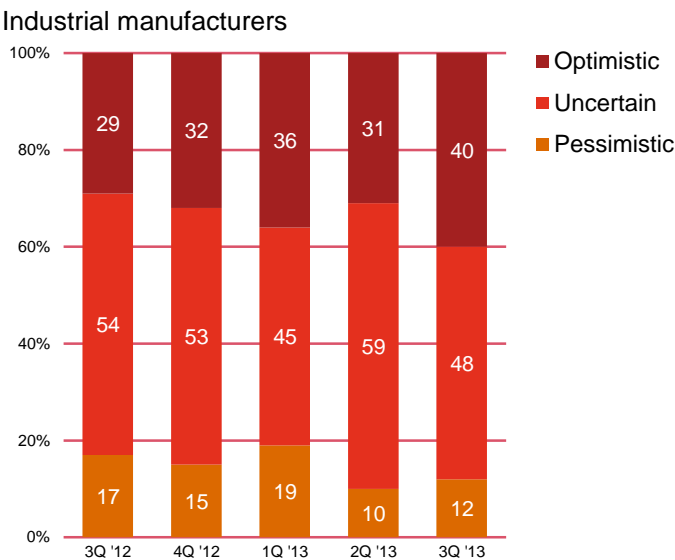
Note: In 3Q 2013 those marketing abroad = 58

View of the world economy, next 12 months

Looking at the next 12 months, how do you feel about the prospects for the world economy? (international marketers only)

Looking ahead, 40 percent of US-based industrial manufacturers who market abroad are optimistic about the prospects for the world economy over the next 12 months, up 9 points from the prior quarter's 31 percent. Twelve percent are pessimistic (up 2 points), while 48 percent are uncertain.

Chart 2.4 View of the world economy, next 12 months



Note: In 3Q 2013 those marketing abroad = 58

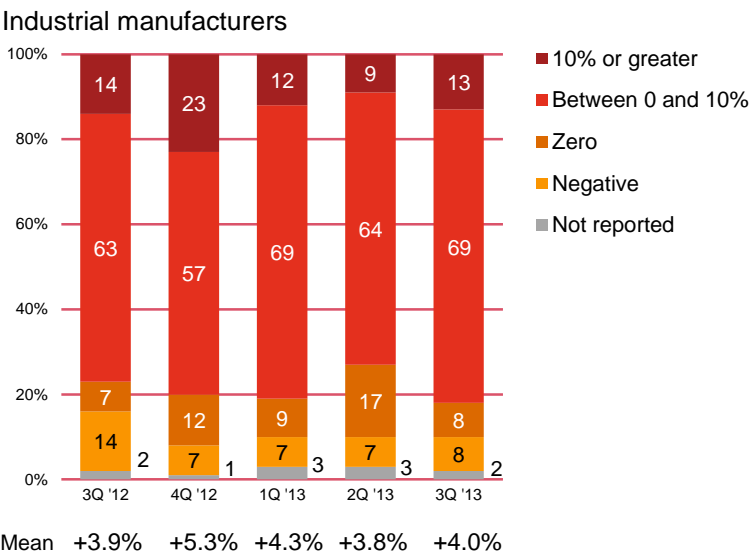
Company performance

Company revenue growth, calendar year

What is your company’s estimated revenue growth rate for the calendar year?

The composite average growth estimate for own-company revenue in the calendar year 2013 was at 4.0 percent, up from 3.8 percent in the second quarter. Eighty-two percent of respondents said they expect positive own-company growth, with 13 percent expecting double-digit growth and 69 percent single-digit growth. Eight percent were on the negative side, while 8 percent expected zero growth, and 2 percent were not reported.

Chart 3.1 Company revenue growth, calendar year



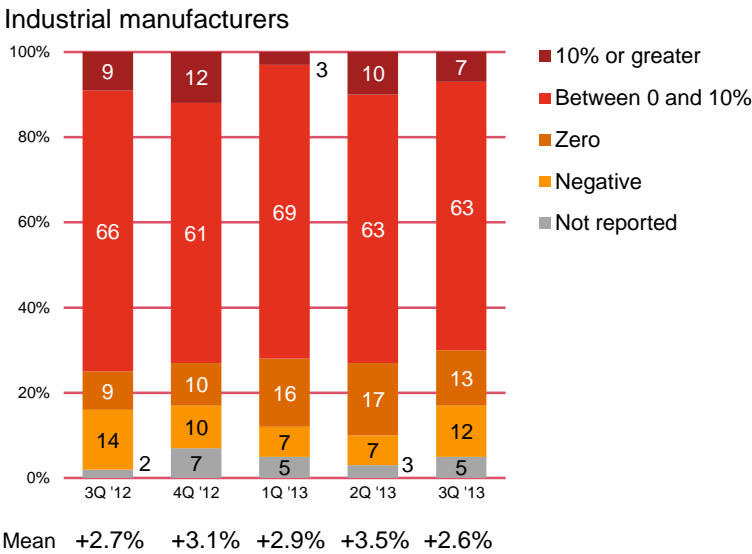
Note: In 3Q 2013 total respondents = 60

Industry growth, calendar year

What is your industry’s estimated growth rate for the calendar year?

Estimated industry growth rate for calendar-year 2013 dropped to 2.6 percent, below the second quarter’s 3.5 percent. Seventy percent of panelists reported positive industry growth for 2013 – 7 percent double-digit growth and 63 percent single-digit growth. Twelve percent were on the negative side (up 5 points). Thirteen percent reported zero growth for this year, and 5 percent were not reported.

Chart 3.2 Industry growth, calendar year



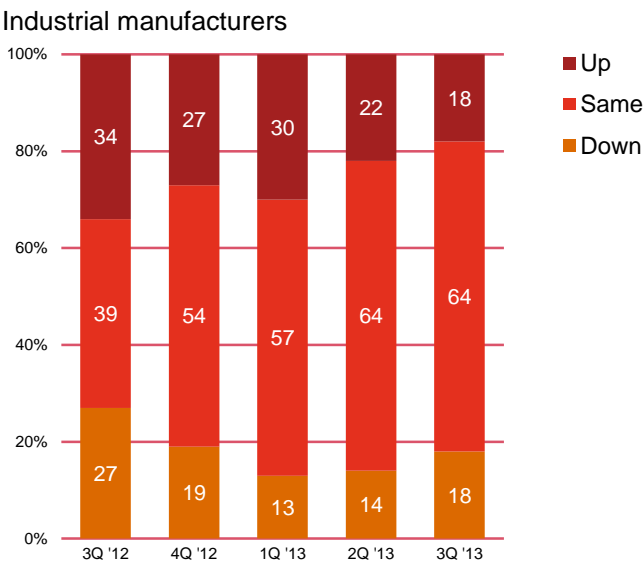
Note: In 3Q 2013 total respondents = 60

International sales

Are international sales up, down, or the same compared with three months ago? (international marketers only)

US-based industrial manufacturers that sell abroad reported a mixed movement in international revenue in third-quarter 2013, with 18 percent reporting an increase in sales (off 4 points), and 18 percent reporting a decrease (4 points higher). The remaining 64 percent said sales stayed about the same quarter-to-quarter.

Chart 3.3 International sales



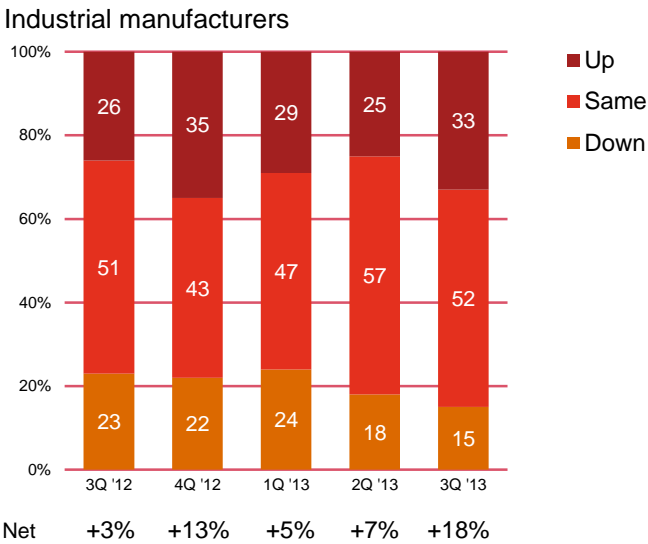
Note: In 3Q 2013 those marketing abroad = 58

Changes in gross margins

Are gross margins up, down, or the same compared with three months ago?

In third-quarter 2013, gross margins moved increasingly positive. They were higher for 33 percent of panelists (up 8 points) and lower for 15 percent (off 3 points), for a net plus 18 percent, 11 points above the prior quarter's plus 7 percent. Fifty-two percent stayed about the same.

Chart 3.4 Changes in gross margins



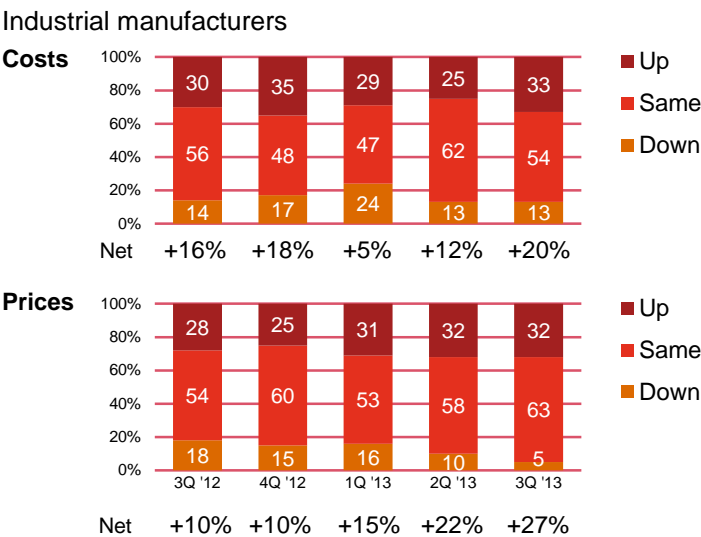
Note: In 3Q 2013 total respondents = 60

Changes in costs and prices

Are costs up, down, or the same compared with three months ago? prices?

In third-quarter 2013, costs and prices were notably higher. Thirty-three percent of US-based industrial manufacturers reported higher costs (up 8 points), and 13 percent reported lower costs (same), for a net plus 20 percent higher, 8 points above the prior quarter's 12 percent. On the price side, 32 percent raised prices (same) and 5 percent lowered them, for a net plus 27 percent reporting higher prices (5 points higher).

Chart 3.5 Changes in costs and prices



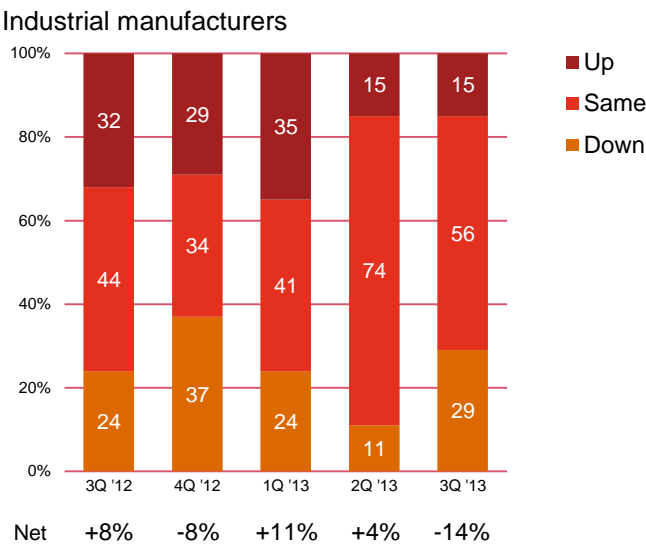
Note: In 3Q 2013 total respondents = 60

Inventory movement

Are finished inventories as a percentage of sales up, down, or the same compared with three months ago?

Inventories as a percentage of sales grew for only 15 percent of US-based industrial manufacturers in the first quarter, same as the prior quarter. Levels were down for 29 percent (up 18 points), for a minus 14 percent decrease, indicating negative inventory growth in third-quarter 2013.

Chart 3.6 Inventory movement



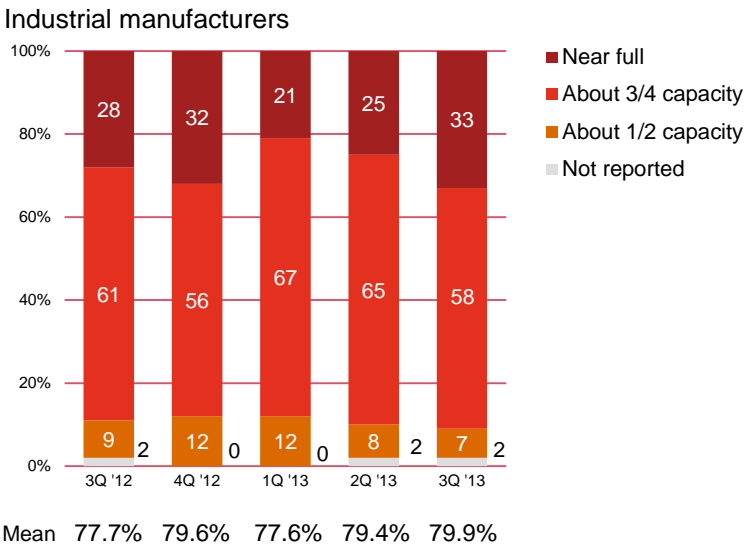
Note: In 3Q 2013 total respondents = 60

Level of operating capacity

What is your organization’s current operating capacity?

Operating capacity is an estimate of the current level of permanent staffing and operations compared with what is needed for full-capacity output. In the third quarter, the mean was 79.9 percent of capacity, similar to the previous quarter’s 77.9 percent, with 33 percent of industrial manufacturers surveyed claiming to be at or near full capacity (up 8 points).

Chart 3.7 Level of operating capacity



Note: In 3Q 2013 total respondents = 60

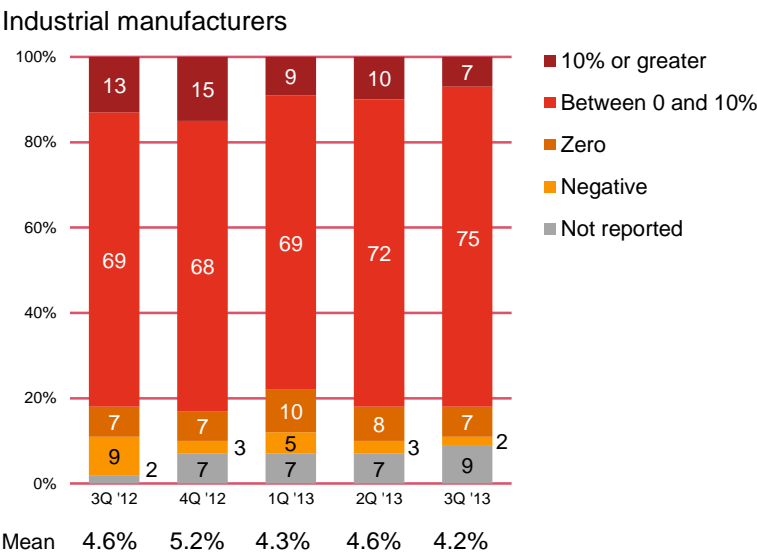
Business outlook, next 12 months

Revenue growth, next 12 months

What is your organization’s estimated revenue growth rate for the next 12 months?

The projected average revenue growth rate over the next 12 months among respondents remained at a moderate 4.2 percent, off slightly from the prior quarter’s 4.6 percent and 4.6 percent a year ago. Eighty-two percent expect positive revenue growth for their own companies, with 7 percent forecasting double-digit growth and 75 percent forecasting single-digit growth. Only 2 percent forecast negative growth, 7 percent forecast zero growth, and 9 percent were not reported.

Chart 4.1 Revenue growth, next 12 months



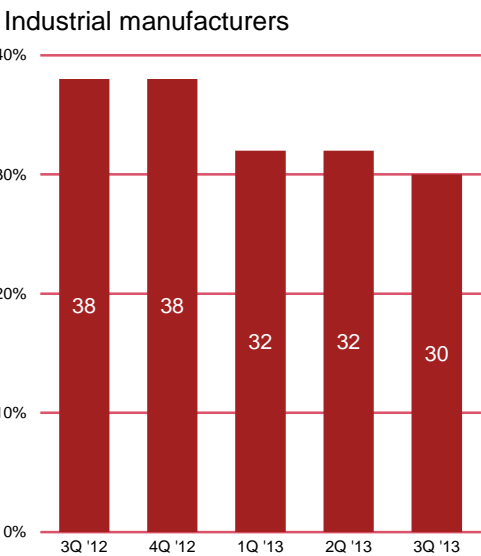
Note: In 3Q 2013 total respondents = 60

International sales, next 12 months

What percentage of your business’s total revenue over the next 12 months do you expect to be derived from international sales? (international marketers only)

Of respondents selling abroad, the projected contribution of international sales to total revenue over the next 12 months was off slightly to the 30 percent level, 2 points below the prior quarter. A year ago, it was at a notably higher 38 percent level.

Chart 4.2 International sales, next 12 months



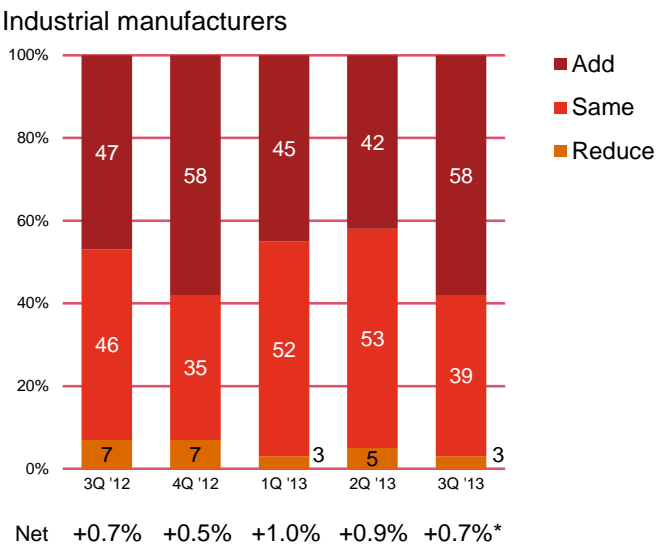
Note: In 3Q 2013 those marketing abroad = 58

Percent planning to hire

Do you plan to add or reduce the number of full-time equivalent employees over the next 12 months?

The majority, 58 percent, of industrial manufacturers surveyed plan to add employees to their workforce over the next 12 months, up 16 points from second-quarter 2013 estimates. Only 3 percent plan to reduce the number of full-time equivalent employees, and 39 percent will stay about the same. The net workforce projection was off slightly to 0.7 percent, similar to last quarter's plus 0.9 percent and the same as last year's 0.7 percent, indicating moderate hiring continuity among these industrial manufacturing firms.

Chart 4.3 Percent planning to hire



* Percent (%) reported for US hiring, 77%

Note: In 3Q 2013 total respondents = 60

Percent planning to hire by type of employee

What types of employees do you plan to add over the next 12 months?

Among the 58 percent of respondents planning to hire within the next 12 months, the most sought-after employees will be skilled labor (35 percent), professionals/technicians (35 percent), and production workers (30 percent). Note that more white collar support hiring are now planned (up 10 points quarter-to-quarter to 17 percent).

Chart 4.4 Percent planning to hire by type of employee

Industrial manufacturers					
	3Q '12	4Q '12	1Q '13	2Q '13	3Q '13
Planning to hire (net)	47%	58%	45%	42%	58%
• Skilled labor	21%	35%	19%	23%	35%
• Professionals/technicians	33%	43%	29%	18%	35%
• Production workers	25%	30%	23%	23%	30%
• White collar support	11%	12%	7%	7%	17%
• Sales/marketing	7%	13%	5%	10%	7%

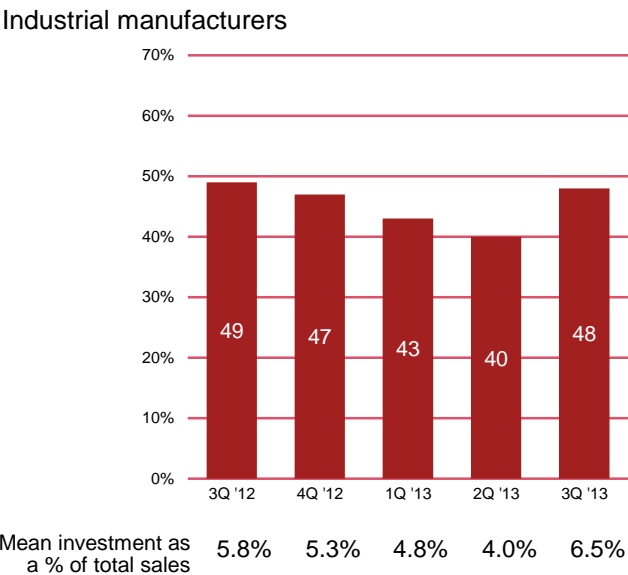
Note: In 3Q 2013 total respondents = 60

Percent planning major new investments of capital

Are you actively planning any major new investments of capital over the next 12 months? If so, what percentage of total sales do you expect to invest?

Overall, 48 percent of US industrial products manufacturers surveyed plan major new investments of capital during the next 12 months, up 8 points from the prior quarter’s 40 percent, and on par with a year ago (49 percent). The mean investment as a percentage of total sales was higher than the prior quarter’s 4.0 percent, at 6.5 percent – indicative of added spending among these panelist businesses.

Chart 4.5 Percent planning major new investments of capital



Note: In 3Q 2013 total respondents = 60

Percent planning to increase operational spending

Over the next 12 months, where do you expect to increase spending?

Looking at the next 12 months, 78 percent of respondents plan to increase operational spending, up 5 points from the second quarter. Leading increased expenditures were new product or service introductions (55 percent, up 10 points), research and development (38 percent), and information technology (35 percent, up 7 points). Plans for geographic expansion rose 8 points to 23 percent, while marketing and sales dropped to 15 percent.

Chart 4.6 Percent planning to increase operational spending

Industrial manufacturers

	3Q '12	4Q '12	1Q '13	2Q '13	3Q '13
Percent planning to increase spending (net)	83%	80%	71%	73%	78%
• New product or service introduction	46%	40%	38%	45%	55%
• Research and development	46%	38%	52%	38%	38%
• Information technology	30%	37%	28%	28%	35%
• Facilities expansion	30%	43%	17%	20%	30%
• Geographic expansion	28%	28%	10%	15%	23%
• Business acquisition	30%	27%	12%	20%	15%
• Marketing and sales promotion	14%	18%	14%	17%	15%
• Advertising	7%	8%	7%	7%	8%
• Internet commerce	5%	6%	5%	7%	2%

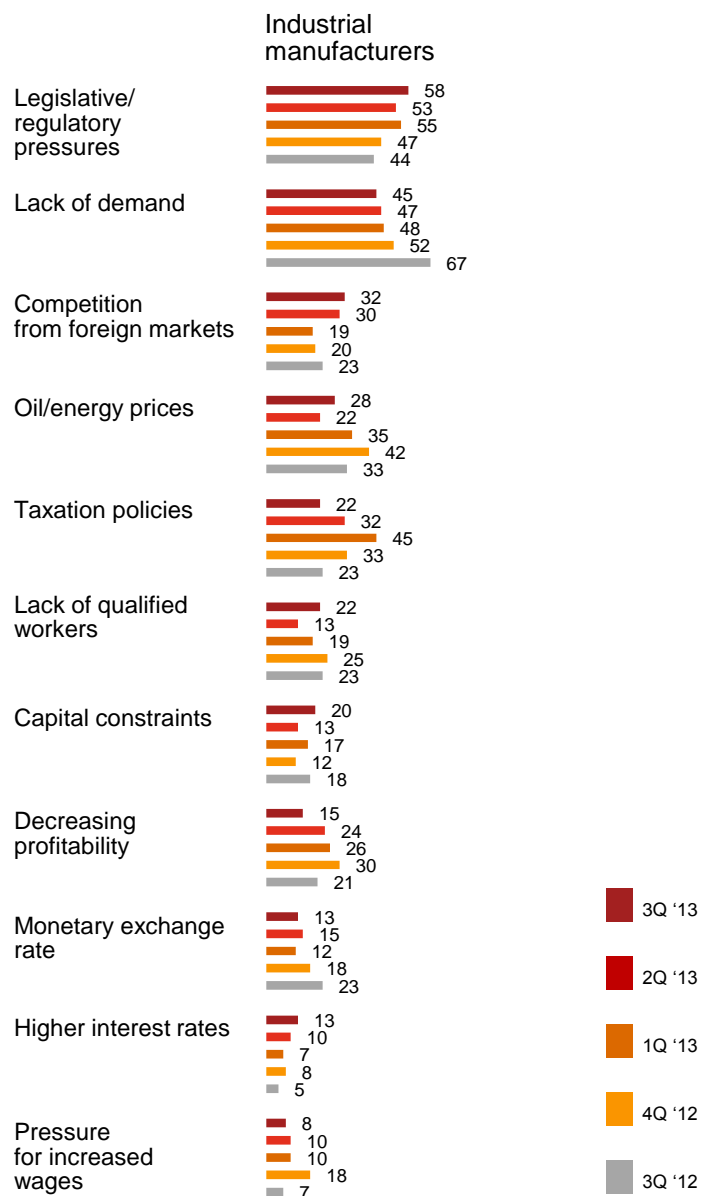
Note: In 3Q 2013 total respondents = 60

Expected barriers to business growth

Over the next 12 months, will any of the following represent barriers to business growth?

At 58 percent, legislative/regulatory pressures is the leading potential barrier to growth over the next 12 months, along with lack of demand (45 percent). Next were competition from foreign markets (32 percent) and oil energy prices (28 percent), followed by taxation policies (22 percent, off 10 points), lack of qualified workers (22 percent, up 10 points), and capital constraints (20 percent, up 7 points). Decreasing profitability was off 9 points to a low of 15 percent. Higher interest rates was up 3 points to 13 percent.

Chart 4.7 Expected barriers to business growth



Note: In 3Q 2013 total respondents = 60

Plans for M&A and other business initiatives

Over the next 12 months, do you expect to participate in any of the following new business initiatives?

The number of respondents planning M&A activity over the next 12 months was a similar 22 percent. Most, 17 percent, are looking at purchasing another business, and 8 percent plan to sell part or all of their own business. Plans for expansion to new markets abroad remained a constant 18 percent. New joint ventures are planned by a notably higher 33 percent, and new strategic alliances was cited by 27 percent. On the debit side, reductions abroad were reported by a net 10 percent, with closing/reduction of facilities abroad cited by 8 percent.

Chart 4.8 Plans for M&A and other business initiatives

Industrial manufacturers

	3Q '12	4Q '12	1Q '13	2Q '13	3Q '13
New business initiatives (net)	58%	60%	47%	50%	58%
• New joint venture	32%	27%	22%	10%	33%
• New strategic alliance	32%	27%	16%	20%	27%
• M&A activity (net)	37%	35%	19%	23%	22%
- Purchase another business	35%	32%	14%	18%	17%
- Sell part/all own business	12%	13%	7%	10%	8%
- Equity carve-out/spin-off	---	2%	---	2%	3%
• Expand to new markets abroad	23%	23%	9%	18%	18%
• New facilities abroad	16%	17%	3%	12%	8%
• Close/reduce facilities abroad	9%	12%	5%	7%	8%
• Reduce activity in markets abroad	7%	3%	2%	3%	5%

Note: In 3Q 2013 total respondents = 60

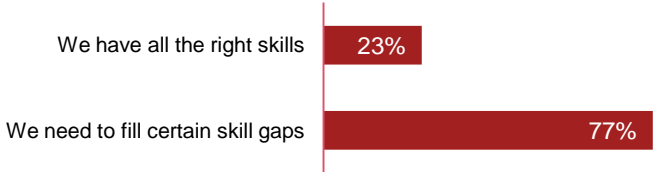
Special topic: *Human capital*

Current skill gaps and hiring plans

Do you believe that your organization’s workforce has all the right skills to meet your company’s business objectives over the next 12-24 months, or is there a need to fill certain gaps?

Significantly, more than three-fourths (77 percent) of US industrial products manufacturers surveyed cite a need to fill certain skill gaps in their businesses over the next 12-24 months. Only 23 percent claim to have all the right skills needed at present.

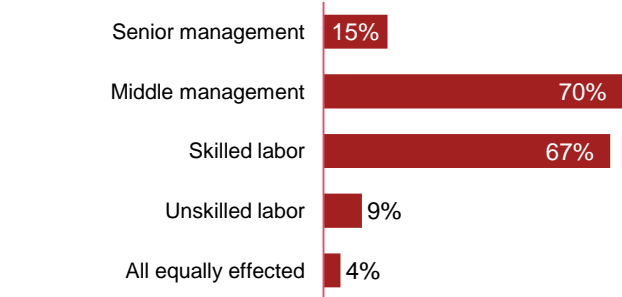
Chart 5.1 Need to fill skill gaps



Where do you see the biggest gaps?

The biggest skill gaps identified were in middle management (70 percent) and skilled labor (67 percent). Senior management is cited by 15 percent.

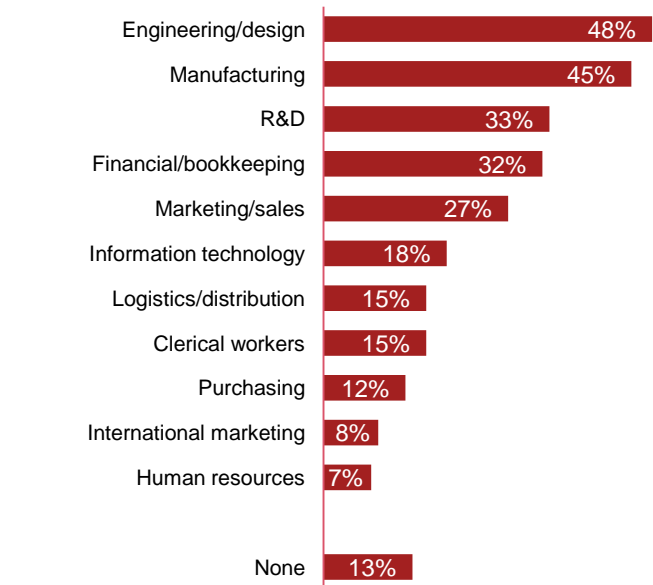
Chart 5.2 Where are biggest skill gaps?



Will your organization be hiring new employees in the following skill functions over the next 12-24 months?

Virtually all US industrial products manufacturers (87 percent) will be hiring new skill function employees over the next 12-24 months. The broadest needs are in engineering/design (48 percent) and in manufacturing (45 percent). Next are R&D (33 percent), financial/bookkeeping (32 percent), marketing/sales (27 percent), and IT (18 percent).

Chart 5.3 Skill functions planning to hire



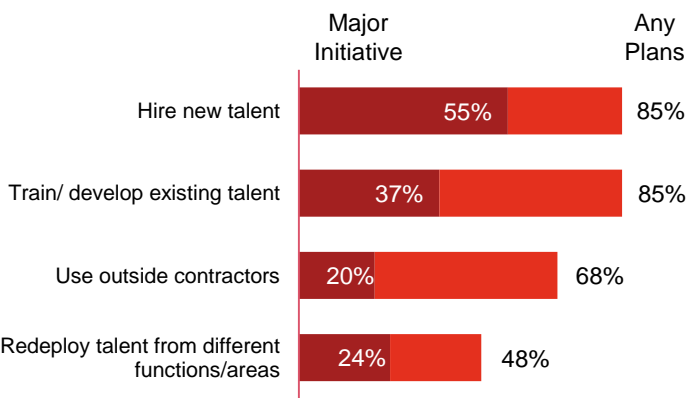
Note: In 3Q 2013 total respondents = 60

Plans to fill skill gaps

To fill your company’s skill gaps over the next 12-24 months, what do you plan to do?

To fill the company’s skill gaps over the next 12-24 months, panel companies will hire new talent, 85 percent (a 55 percent major initiative), and train/develop existing talent, 85 percent (a 37 percent major initiative). Sixty-eight percent will use outside contractors, and 48 percent will redeploy talent from different functions/areas.

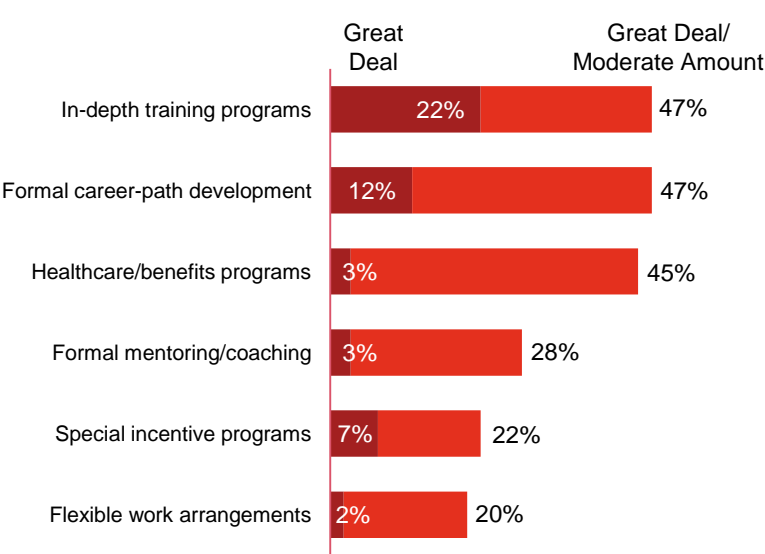
Chart 5.4 Plans on how to fill skill gaps



To attract and retain talent, to what extent is your company investing (or do you plan to invest) in these initiatives?

Three critical investment areas are cited by US industrial product manufacturer panelists to attract and retain talent. They are in-depth training programs, 47 percent (22 percent a great deal of investment); formal career-path development, 47 percent (12 percent a great deal); and healthcare/benefits programs, 45 percent (3 percent a great deal). Also noted were formal mentoring/coaching (28 percent), special incentive programs (22 percent), and flexible work arrangements (20 percent).

Chart 5.5 Investment areas to attract/retain talent



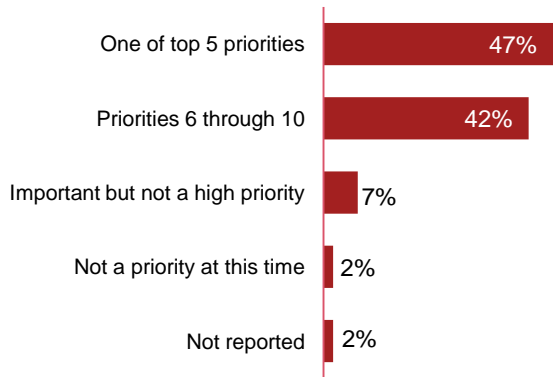
Note: In 3Q 2013 total respondents = 60

Talent management

Where does talent management – the development of talented/skilled workers – currently rank in your company’s objectives?

Significantly, virtually all US industrial product manufacturers (89 percent) currently rank talent management– the development of talented/skilled workers – as a top 10 priority, 47 percent as one of their top 5 priorities, and 42 percent as priorities 6 through 10. Another 7 percent believe it important but not a high priority, and only 2 percent rank it as a non-priority.

Chart 5.6 Is talent management a company priority?

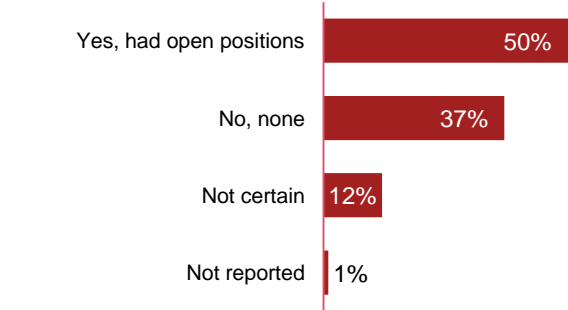


Over the past year, has your organization had open positions that you were unable to fill with experienced or skilled employees?

Over the past year, half (50 percent) of US industrial product organizations admit to having open positions that they were unable to fill with experienced or skilled employees. Another 12 percent were uncertain, while 37 percent claim to have had no open positions.

In sum, in a limited job market, it is troublesome that three-fourths of panelists report a skill gap, and half those companies report an inability to fill certain skill gaps over the past year.

Chart 5.7 Open positions unable to fill this past year



Note: In 3Q 2013 total respondents = 60

Survey demographics and research methodology

Demographics

Who	Senior executives of US-based industrial manufacturing organizations
Interview dates	July 1, 2013 to September 30, 2013
	Industrial manufacturers (60)
Average number of employees at location	78,586
Average business unit revenue	\$3.24 billion
Average enterprise revenue	\$9.34 billion
Market capitalization	\$11.92 billion
Industry sectors	Products 100% Manufacturing 100%

Methodology

PwC's *Manufacturing Barometer* is a quarterly telephone survey conducted by the independent research firm BSI Global Research Inc. Our regular survey panel consists of senior executives from a geographically balanced sample of large companies in the United States. Ninety-five percent of the panelists hold titles such as president, CEO, CFO, VP of finance, treasurer, controller, internal audit director, or other related title.

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About the research:

The Manufacturing Barometer is one in a series of quarterly business outlook surveys from PwC. The survey provides a view on the 12-month outlook for revenue growth, new investments, new hiring plans, emerging business barriers and more. In addition to the business outlook, we hear from our panelists about special issues they face as the business climate changes. Results of the quarterly business outlook surveys and special issue surveys are available at www.barometersurveys.com.

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